

AMENDMENTS TO THE CLAIMS

1. (currently amended): An isolated polypeptide which possesses endo-xylogalacturonase activity which comprises the sequence of SEQ ID NO: 2, or a sequence which is at least 80% identical to SEQ ID NO. 2 over the full length of SEQ ID NO: 2, or a fragment of either sequence which is at least 200 amino acids long.
2. (currently amended): A polypeptide having endo-xylogalacturonase activity which is obtainable from a fungus, ~~[[and]]~~ possesses endo-xylogalacturonase activity, and is capable of cleaving xylogalacturonan between adjacent galacturonan non-terminal units.
3. (original): A polypeptide according to claim 2 wherein said fungus is of the genus *Aspergillus*.
- 4-5. (canceled)
6. (currently amended): ~~[[A]]~~ The polypeptide according to claim ~~[[5]]~~ 1 which comprises amino acids 19 to 406 of the amino acid sequence ~~[[set-out in]]~~ of SEQ ID ~~[[No.]]~~ NO: 2.
7. (withdrawn/currently amended): A polynucleotide encoding ~~[[a]]~~ the polypeptide according to claim 1.
8. (withdrawn/currently amended): A polynucleotide comprising:
 - (a) ~~[[a]]~~ the polynucleotide sequence ~~[[set-out in]]~~ of SEQ ID ~~[[No.]]~~ NO: 1, or ~~[[the]]~~ a complement thereof;
 - (b) a polynucleotide sequence capable of hybridising to the nucleotide sequence ~~[[set-out in]]~~ of SEQ ID ~~[[No.]]~~ NO: 1, or a fragment thereof;
 - (c) the polynucleotide sequence capable of hybridising to the complement of the polynucleotide sequence ~~[[set-out in]]~~ of SEQ ID ~~[[No.]]~~ NO: 1, or a fragment thereof; and/or

(d) a polynucleotide sequence which is degenerate as a result of the genetic code to any of the polynucleotides defined in (a), (b) or (c)

wherein the polynucleotide encodes or is a complement to a polynucleotide that encodes the polypeptide of claim 1.

9. (withdrawn/currently amended): ~~[[A]]~~ The polynucleotide according to claim 8 which:

a. encodes a polypeptide having endo-xylogalacturonase activity, which polynucleotide is:

(1) the coding sequence of SEQ ID ~~[[No.]]~~ NO: 1;

(2) a sequence which hybridises selectively to the complement of sequence defined in (1); or

(3) a sequence that is degenerate as a result of the genetic code with respect to a sequence defined in (1) or (2); or

b. is a sequence complementary to a polynucleotide defined in (a).

10. (withdrawn/currently amended): ~~[[A]]~~ The isolated polynucleotide according to claim 7 obtainable from a fungus.

11. (withdrawn/currently amended): ~~[[A]]~~ The polynucleotide according to claim 10 wherein the fungus is of the genus *Aspergillus*.

12. (canceled)

13. (withdrawn/currently amended): A vector comprising ~~[[a]]~~ the polynucleotide as defined in claim 7.

14. (withdrawn/currently amended): An expression vector comprising ~~[[a]]~~ the polynucleotide as defined in claim 7 operably linked to one or more regulatory sequences capable of directing expression of the polynucleotide in a host cell.

15. (withdrawn/currently amended): A host cell transformed or transfected with, comprising or incorporating ~~[[a]]~~ the vector according to claim 13.

16. (withdrawn/currently amended): A host cell comprising or harbouring ~~[[a]]~~ the polynucleotide according to claim 7 wherein the polynucleotide is heterologous to the genome of the host cell.

17. (withdrawn): A host cell according to claim 15 which is a yeast cell.

18. (withdrawn/currently amended): A method for producing ~~[[a]]~~ the polypeptide according to claim 1 which comprises incubating or culturing a host cell ~~[[according to claim 15]]~~ containing a vector which comprises a polynucleotide for encoding the polypeptide under conditions which allow the expression of the polypeptide, and optionally purifying the polypeptide.

19. (withdrawn/currently amended): A host cell comprising or expressing ~~[[a]]~~ the polypeptide according to claim 1 wherein the polypeptide is heterologous to the host cell.

20. (currently amended): A composition comprising ~~[[a]]~~ the polypeptide according to claim 1.

21. (currently amended): ~~[[A]]~~ The composition according to claim 20 which further comprises a polypeptide having endo-arabinanase, rhamnogalacturonase or polygalacturonase activity.

22. (withdrawn/currently amended): A method of treating a plant material, the method comprising contacting the plant material with ~~[[a]]~~ the polypeptide according to claim 1.

23. (withdrawn/currently amended): ~~[[A]]~~ The method according to claim 22 wherein the treatment comprises degrading or modifying pectin in the plant material.

24. (withdrawn/currently amended): ~~[[A]]~~ The method according to claim 22 for degrading or modifying plant cell walls.

25. (withdrawn/currently amended): ~~[[A]]~~ The method according to claim 22 wherein the treatment comprises endo-type cleaving of xylogalacturonan subunits of a pectin component of the material.

26. (withdrawn/currently amended): ~~[[A]]~~ The method according to claim 22 wherein the material comprises a ~~[[plane]]~~ plant pulp, plant extract or an edible foodstuff or ingredient therefor.

27. (withdrawn/currently amended): ~~[[A]]~~ The method according to claim 26 wherein the material is fruit or vegetable pulp, juice or extract.

28. (withdrawn/currently amended): A processed plant material obtainable by contacting a plant material with ~~[[a]]~~ the polypeptide according to claim 1.

29. (withdrawn/currently amended): ~~[[A]]~~ The processed plant material according to claim ~~[[27]]~~ 28 which is a fruit or vegetable juice.

30. (withdrawn/currently amended): A method for reducing the viscosity of a plant material, the method comprising contacting the plant material with ~~[[a]]~~ the polypeptide according to claim 1.

31-32. (canceled)

33. (withdrawn/currently amended): ~~[[Use of a polypeptide according to claim 1 in a]]~~ A method of processing plant pulp, juice or extract which method comprises incubating the pulp, juice or extract with the polypeptide of claim 1 or a composition thereof to at least partially degrade pectin.

34. (withdrawn/currently amended): An ~~[[a]]~~ animal ~~[[a]]~~ feed or foodstuff comprising a polypeptide according to claim 1.

35-38. (canceled)

39. (withdrawn/currently amended): A method of treating a plant material, the method comprising contacting the plant material with ~~[[a]]~~ the composition according to claim 20.

40. (withdrawn/currently amended): A processed plant material obtainable by contacting a plant material with ~~[[a]]~~ the composition according to claim 20.

41. (withdrawn/currently amended): A processed plant material obtainable by contacting a plant material with ~~[[a]]~~ the composition which results from a method according to claim 22.

42. (withdrawn/currently amended): A method for reducing the viscosity of a plant material, the method comprising contacting the plant material with ~~[[a]]~~ the composition according to claim 20 in an amount and under conditions effective to degrade pectin contained in the material.

43. (canceled)

44. (withdrawn/currently amended): ~~[[Use of a composition according to claim 20 in a]]~~
A method of processing plant pulp, juice or extract which method comprises incubating the pulp, juice or extract with the ~~[[polypeptide or]]~~ composition to at least partially degrade pectin.

45. (new): The polypeptide of claim 1 which is obtainable from a fungus.

46. (new): The polypeptide of claim 45 wherein the fungus is of the genus *Aspergillus*.

47. (new): The polypeptide of claim 1 wherein the endo-xylogalacturonase activity is capable of cleaving xylogalacturonan between adjacent galacturonan non-terminal units.

48. (new): An isolated polypeptide which possesses endo-xylogalacturonase activity which is the sequence of SEQ ID NO: 2, or a sequence which is at least 80% identical to SEQ ID NO: 2 over the full length of SEQ ID NO: 2, or a fragment of either sequence which is at least 200 amino acids long.

49. (new): The polypeptide of claim 48 which is SEQ ID NO: 2 or a sequence which is 95% identical to SEQ ID NO: 2.